

The Examiner objected to the disclosure because of the following informalities: *on page 19, line 16 cap rotator is labeled as 516 rather than 1516.* These formalities have been corrected, and new drawings are submitted herewith.

Claims 1-12 were rejected under 35 USC 112 as being indefinite. Applicant has amended the claims to properly recite a “cap and vessel” as opposed to a “cap and vessel positioning system.” Applicant submits that the claims contain sufficient structure to define them as a cap and vessel. The structure for securing the cap to the vessel are the threads of the vessel and of the cap, as recited in the claims.

Claim 1 was rejected under 35 USC 102(b) as being anticipated by Laguana Valderrama (US Patent No. 5,811,030). Applicant traverses this rejection, and submits that Laguana Valderrama does not contain each and every element of the claim. Specifically, the claim recites that the cap “is secured to the threaded vessel when the cap flange and vessel flange are aligned.” No mention or disclosure in Laguana Valderrama is made that the cap is secured when the flanges are aligned. Applicant respectfully submits that claim 1 is allowable.

Claims 2-3 were rejected under 35 USC 103(a) as unpatentable over Laguana Valderrama in view of Long, Jr. (US Patent No. 6,059,134). Applicant traverses this rejection. Laguana Valderrama does not disclose the subject matter of claim 1, from which claims 2-3 depend, as discussed above. Further, Long, Jr. recited and discloses eight or nine disjoint threads (See Abstract), which cannot therefore be aligned as is recited in claim 3. The disjoint threads in Long, Jr. are not spaced at approximately 90 degrees away from an adjacent thread, as is clearly shown in Figure 1. Applicant respectfully submits that claims 2-3 are allowable.

Claim 12 was rejected under 35 USC 103(a) as being unpatentable over Laguana Valderrama in view of Long, Jr. and further in view of Burns (US Patent No. 5,288,466). Applicant traverses this rejection. Claim 12 depends from and further defines claim 1, which is allowable for the reasons discussed above. Applicant respectfully submits that claim 12 is allowable.

Claims 1-12 and 18-22 were rejected under 35 USC 103(a) as being unpatentable over Burns in view of Long, Jr. Applicant traverses this rejection. Burns does not contain threads of any type in its disclosure. It would require substantial modification of Burns to allow it to use threads. Such a modification would not only be substantial, but would also change the nature of Burns. MPEP 2143.01 states in part:

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

In this instance, modification of the Burns device is improper because it is stated in Burns that the snap-lock feature of Burns is a feature of the invention. See Col. 2, ll. 57-59.

MPEP 2143.01 states in part:

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Applicant submits that there is no suggestion or motivation to combine the references, one of which, Burns, is a snap on device, and the other of which, Long, Jr., is a twist on or snap on device. Burns states that its snap-lock device is a feature of the invention. As such, Burns actually teaches away from the use of threads, so the threads of Long, Jr. are not properly combinable with the snap-lock feature of Burns. As such, no *prima facie* case of obviousness is supportable using a combination of Burns in view of Long, Jr.

With respect to claims 18-22, the Burns device does not contain a screw on cap. In fact, it teaches away from a screw on cap. Therefore, Applicant respectfully

submits that it is improper to attempt to combine a featured snap-lock cap such as in Burns with a screw on cap such as is described in Long, Jr. Burns teaches away from a screw on cap. There is simply no motivation to combine the references.

Applicant respectfully submits that claims 1-12 and 20-23 are allowable.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2200.

Respectfully submitted,

22 JAN 2002  
Date

  
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**Marked Up Version Showing Changes Made**

**In the Claims**

1. (Amended) A cap and vessel [positioning system] comprising:  
a threaded cap having a cap flange; and  
a threaded vessel having a vessel flange, wherein the threaded cap is secured to the threaded vessel when the cap flange and vessel flange are aligned.
2. (Amended) The cap and vessel [positioning system] of claim 1 wherein the threaded vessel and thread cap have multiple disjointed threads.
3. (Amended) The cap and vessel [positioning system] of claim 2 wherein the threaded vessel and threaded cap each have four disjointed threads extending about 180 degrees around the circumference of the threaded vessel, further wherein each thread starts in a location about 90 degrees away from an adjacent thread.
4. (Amended) The cap and vessel [positioning system] of claim 1 wherein the cap flange and vessel flange each have four sides of about the same length.
5. (Amended) The cap and vessel [positioning system] of claim 4 wherein the cap flange and the vessel flange are substantially square.
6. (Amended) The cap and vessel [positioning system] of claim 4 wherein the threaded vessel and threaded cap each have four disjointed threads extending about 180 degrees around the circumference of the threaded vessel, further wherein each thread starts in a location at the midpoint of one of the vessel flange sides, and about 90 degrees away from an adjacent thread.

7. (Amended) The cap and vessel [positioning system] of claim 4 wherein the threaded cap is secured to the threaded vessel a first time after being rotated in one direction approximately 180 degrees.
8. (Amended) The cap and vessel [positioning system] of claim 4 wherein the threaded cap is secured to the threaded vessel after being rotated in one direction about 360 degrees or less.
9. (Amended) The cap and vessel [positioning system] of claim 7 wherein the threaded cap is removed from the threaded vessel after being rotated in an opposing direction 180 degrees, further wherein the threaded cap is resecured to the threaded vessel in substantially the identical position as the first time.

Please cancel claims 10 and 11.

12. (Amended) The cap and vessel [positioning system] of claim 1 wherein the threaded cap and threaded vessel are injection molded using polypropylene.

In the Specification:

On Page 5, beginning at line 20, please substitute the newly rewritten paragraph as follows:

Base 102 serves as a support for the remaining components of the mixing and pouring apparatus 100. Base 102 includes on one embodiment guide pin openings 132 capable of receiving a supplemental vessel and cap cradle for use in a pouring operation to be described later. Locking arm support 104 includes openings for receiving a support or supports for the locking arm 106 at its ends [144] 145 and [146] 147. Shaft 134 of locking arm support 104 is fixedly connected to drive mechanism 108 and locking arm 106 for effecting motion of locking arm 106 in response to operation of the drive mechanism 108.

On Page 8, beginning at line 25, please substitute the newly rewritten paragraph as follows:

Motor 130 and drive mechanism 108 in one embodiment have a registration mechanism to ensure that the locking arm begins its operational processes from the same position each time the apparatus 100 is started. Such registration mechanism is shown in greater detail in Figs. 2, 6, and 7. A registration disk 137 is fixedly attached to shaft 134, so that registration disk 137 will rotate when shaft 134 rotates as described above. Registration disk 137 has therein along its circumference a registration slot 139 extending inward from the outer edge toward shaft 134. In the position shown in Fig. 6, the registration slot is aligned with optocoupler 138 when the locking arm 106 is substantially vertical with respect to the plane 131 of the base 102 of apparatus 100. The registration mechanism is connected to the motor 130 by suitable wiring 136.

On page 19, beginning at line 14, please substitute the newly rewritten paragraph as follows:

In the embodiment shown in Fig. 15, each of the holes 140 further have recesses 1524 on opposing sides into which the opposing blades 1520 on the cap rotator 1516 slide to pick up the cap 114 in order to move it out of the locking pocket 142. The process is completed in reverse when it is desired to remove the cap 114. In other words, the cap 114 is rotated 180 degrees in the reverse direction and returned to the locking pocket 142 in the same position it began. The screwing and unscrewing of the cap 114 and placement in the locking pocket 142 can also be completed manually. In one embodiment, bar codes are used to identify the vessel 112 and cap 114 so that the same cap 114 is always used with the same vessel 112. This helps to ensure that there is no contamination or cross-contamination, although in most embodiments all of the vessels 112 and caps 114 are made with the same die so that the caps and vessels are interchangeable.